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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/807,775

03/23/2004

Glenn W. Gengel

003424.P061

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12/20/2005

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EXAMINER

MULLEN, THOMAS J

ART UNIT

PAPER NUMBER

2632

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/807,775

Applicant(s)

GENGEL ET AL

Examiner

Thomas J. Mullen, Jr.

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3,5,7 and 9-68 is/are allowed.
- 6) ☒ Claim(s) 4,6,8 and 69 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/7/05</u> . <u>-(2 pages)</u> | 6) <input type="checkbox"/> Other: _____  |

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1. The RCE and accompanying amendment filed 11/7/05 have been entered. The amendment corresponds to the after-final response filed 9/30/05, which was not entered. An action on the merits follows.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 69, 4, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Moskowitz et al (US 5528222), with an inherent teaching of Moskowitz et al explained by Brady et al (US 5682143); see MPEP 2131.01.

Note in Moskowitz et al, Figs. 3-4, the Abstract and col. 4, line 61 to col. 5, line 25. Moskowitz et al disclose an "RFID" tag comprising a "flexible" substrate (320 or 420); integrated circuit (IC) (310 or 410), "embedded" within the substrate such that the top surface of the IC is "coplanar" with the substrate (see lines 3-4 of the Abstract, col. 4, lines 32-33, and col. 5, lines 20-21--also, note in Fig. 3 that a top surface of IC 310 is "coplanar" with a portion of the thickness of the substrate 320), and the rest of the IC is "recessed below a surface" of the substrate; and at least one conductive element (330 or 430) formed on the substrate and being electrically connected to the IC (via contacts 325 or 425), the conductive element serving as an "antenna" for the tag.

Claim 69 as amended calls for the flexible substrate being a "plastic" substrate "having a thickness less than 1mm". Moskowitz et al further teaches that the substrate (320 or 420) is part of an overall RF tag "package" (shown in cross-section in Fig. 3 for example), wherein the "total package thickness...does not exceed that of an ISO standard credit card" (see col. 3, lines 20-23), the ISO standard credit card thickness being "0.76 mm" (col. 2, lines 41-42). It follows, then, that the substrate itself has a thickness considerably "less than 1mm", as claimed. As to the material used for the flexible substrate, Moskowitz et al teaches using a "copper/organic laminate" where the "organic" materials are "polyester" or "polyimide" (see col. 4, lines 5-11). While Moskowitz et al does not expressly teach that the "organic polyester/polyimide" is a type of "plastic" material per se, it is taught in Brady et al (US 5682143) at col. 4, lines 49-50 that an "organic plastic (like polyester)" may be used to form a "substrate" for an RF tag--i.e.,

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that organic polyester is inherently a type of "plastic" per se. Therefore, Moskowitz et al inherently teaches the use of a flexible "plastic" substrate.

Regarding claim 4, as noted above Moskowitz et al discloses an IC having at least two "interconnection pads" (325 or 425).

Regarding claim 6, Moskowitz et al further teaches that the conductive element serving as an "antenna" for the tag may be "25 to 35 micron thick copper lines" which have either been "etched" or "plated" onto the substrate (col. 4, lines 5-8); thus, Moskowitz et al appears to teach that the conductive element is at least one of the "printed" or "plated" variations recited.

Regarding claim 8, Moskowitz et al further teaches, in a pair of embodiments (Figs. 4 and 5), forming two "conductive elements" (430 in Fig. 4, 530 and 531 in Fig. 5) on the substrate (420 or 520) which are electrically connected to the IC (410 or 510) "on opposite corners or in diagonal corners" of the IC (note the configuration of the contacts 425 or 525 with respect to the ICs).

4. Claims 2-3, 5, 7, 9-68 are allowed.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The art cited by applicant 11/7/05 is made of record; Moskowitz et al (US 5528222) was already cited by the examiner (and previously relied on in a rejection under 35 U.S.C. 102), and has been crossed out on the IDS.

6. This Office action is non-final.

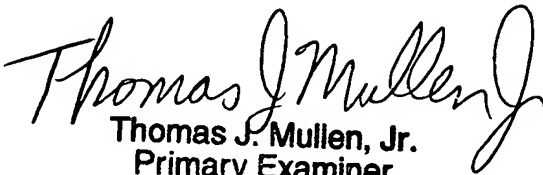
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Mullen, Jr. whose telephone number is 571-272-2965. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu, can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

TJM

  
Thomas J. Mullen, Jr.  
Primary Examiner  
Art Unit 2632